

We claim:

1. An electronic ballast with life-ended protection comprising: a rectifier and filter circuit, a DC/AC inverter circuit and a resonant circuit, an input of the rectifier and filter circuit been connected to an outside power supply, its output been connected to the inputs  
5 of DC/AC inverter circuit, an output of the DC/AC inverter circuit been connected to the inputs of resonant circuit, and an output of the resonant circuit been connected to a lamp, **characterized in that:** also comprising a feedback driver circuit and a filament current loop connected to the lamp at its input, an input of the feedback driver circuit been connected to the filament current loop, its output been connected to the control terminal of  
10 the DC/AC inverter circuit, electrical signals of the filament current loop be controlling the DC/AC inverter circuit to drive the resonant circuit through the feedback driver circuit.

2. The electronic ballast with life-ended protection according to claim 1, **characterized in that:** a feedback drive transformer connected to the lamp filament current loop at its primary winding and to the input of the DC/AC inverter circuit at its secondary winding is used for the feedback driver circuit.

3. The electronic ballast with life-ended protection according to claim 1, **characterized in that:** a filament capacitor loop connected to one end of the lamp at its input and to the input of the feedback driver circuit at its output is used for the said lamp filament capacitor circuit:

4. The electronic ballast with life-ended protection according to claim 1 or 2, **characterized in that:** a filament capacitor loop used for the said lamp filament capacitor circuit includes a capacitor and a thermal resistor in parallel, an input of the filament capacitor loop is connected to one end of the lamp, its output is connected to the primary  
5 winding of the feedback drive transformer, an output of the primary winding is connected to the other end of the lamp, the secondary winding of the feedback drive transformer is connected for providing a drive power to bases of the two triodes of the DC/AC inverter circuit, respectively.